



# SEQUENCE LISTING

<110> Novo Nordisk A/S

<120> Novel GLP-1 derivatives

<130> 6692-WO

<160> 5

<170> PatentIn version 3.1

<210> 1

<211> 31

<212> PRT

<213> Homo sapiens

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His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly  
20 25 30

<210> 2

<211> 40

<212> PRT

<213> Artificial

<220>

<223> Synthetic

<220>

<221> MISC\_FEATURE

<222> (1)..(1)

<223> Xaa at position 1 is L-histidine, D-histidine, desamino-histidine, 2-amino-histidine, beta-hydroxy-histidine, homohistidine, N-alpha-acetyl-histidine, alpha-fluoromethyl-histidine, alpha-methyl-histidine, 3-pyridylalanine, 2-pyridylalanine, or 4-pyridylalanine.

<220>

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<222> (2)..(2)

<223> Xaa at position 2 is Ala, Gly, Val, Leu, Ile, Lys, Aib, (1-aminocyclopropyl) carboxylic acid, (1-aminocyclobutyl) carboxylic acid, (1-aminocyclopentyl) carboxylic acid, (1-aminocyclohexyl) carboxylic acid, (1-aminocycloheptyl) carboxylic acid or (1-aminocyclooctyl) carboxylic acid.

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<222> (10)..(10)  
 <223> Xaa at position 10 is Val or Leu.

<220>  
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 <222> (12)..(12)  
 <223> Xaa at position 12 is Ser, Lys or Arg.

<220>  
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 <222> (13)..(13)  
 <223> Xaa at position 13 is Tyr or Gln.

<220>  
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 <222> (14)..(14)  
 <223> Xaa at position 14 is Leu or Met.

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 <222> (16)..(16)  
 <223> Xaa at position 16 is Gly, Glu or Aib.

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 <222> (17)..(17)  
 <223> Xaa at position 17 is Gln, Glu, Lys or Arg.

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 <222> (19)..(19)  
 <223> Xaa at position 19 is Ala or Val.

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 <222> (20)..(20)  
 <223> Xaa at position 20 is Lys, Glu or Arg.

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 <222> (21)..(21)  
 <223> Xaa at position 21 is Glu or Leu.

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 <222> (24)..(24)  
 <223> Xaa at position 24 is Ala, Glu or Arg.

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<222> (27)..(27)  
<223> Xaa at position 27 is Val or Lys.

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<222> (28)..(28)  
<223> Xaa at position 28 is Lys, Glu, Asn or Arg.

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<222> (29)..(29)  
<223> Xaa at position 29 is Gly or Aib.

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<222> (30)..(30)  
<223> Xaa at position 30 is Arg, Gly or Lys.

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<222> (31)..(31)  
<223> Xaa at position 31 is Gly, Ala, Glu, Pro, Lys, amide or is absent

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<222> (32)..(32)  
<223> Xaa at position 32 is Lys, Ser, amide or is absent.

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<222> (33)..(33)  
<223> Xaa at position 33 is Ser, Lys, amide or is absent.

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<222> (34)..(34)  
<223> Xaa at position 34 is Gly, amide or is absent.

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<222> (35)..(35)  
<223> Xaa at position 35 is Ala, amide or is absent.

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<223> Xaa at position 36 is Pro, amide or is absent.

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<223> Xaa at position 37 is Pro, amide or is absent.

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<222> (38)..(38)  
<223> Xaa at position 38 is Pro, amide or is absent.

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<222> (39)..(39)  
<223> Xaa at position 39 is Ser, amide or is absent.

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<222> (40)..(40)  
<223> Xaa at position 40 is amide or is absent.

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Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Xaa	Xaa	Xaa	Glu	Xaa
1				5					10					15	

Xaa	Ala	Xaa	Xaa	Xaa	Phe	Ile	Xaa	Trp	Leu	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		35				40	

<210> 3  
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<213> Artificial

<220>  
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<220>  
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<222> (1)..(1)  
<223> Xaa at position 1 is L-histidine, D-histidine, desamino-histidine, 2-amino-histidine, beta-hydroxy-histidine, homohistidine, N-alpha-acetyl-histidine, alpha-fluoromethyl-histidine, alpha-methyl-h

istidine, 3-pyridylalanine, 2-pyridylalanine, or 4-pyridylalanine

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<222> (2)..(2)

<223> Xaa at position 2 is Ala, Gly, Val, Leu, Ile, Lys, Aib, (1-aminocyclopropyl) carboxylic acid, (1-aminocyclobutyl) carboxylic acid, (1-aminocyclopentyl) carboxylic acid, (1-aminocyclohexyl) carboxylic acid, (1-aminocycloheptyl) carboxylic acid or (1-aminocyclooctyl) carboxylic acid.

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<222> (12)..(12)

<223> Xaa at position 12 is Ser, Lys or Arg.

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<222> (16)..(16)

<223> Xaa at position 16 is Gly, Glu or Aib.

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<222> (17)..(17)

<223> Xaa at position 17 is Gln, Gly, Lys or Arg.

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<222> (20)..(20)

<223> Xaa at position 20 is Lys, Glu or Arg.

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<222> (24)..(24)

<223> Xaa at position 24 is Ala, Glu or Arg.

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<222> (28)..(28)

<223> Xaa at position 28 is Lys, Glu or Arg.

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<222> (29)..(29)

<223> Xaa at position 29 is Gly or Aib.

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<221> MISC\_FEATURE  
<222> (30)..(30)  
<223> Xaa at position 30 is Arg or Lys..

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<222> (31)..(31)  
<223> Xaa at position 31 is Gly, Ala, Glu or Lys.

<220>  
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<222> (32)..(32)  
<223> Xaa at position 32 is Lys, amide or is absent.

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Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Xaa	Tyr	Leu	Glu	Xaa
1				5					10					15	

Xaa	Ala	Ala	Xaa	Glu	Phe	Ile	Xaa	Trp	Leu	Val	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		

<210> 4  
<211> 39  
<212> PRT  
<213> Gila monster

<220>  
<221> MISC\_FEATURE  
<222> (39)..(39)  
<223> Amidation of carboxy group.

<400> 4

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		

Ser	Gly	Ala	Pro	Pro	Pro	Ser
						35

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<223> Synthetic

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<222> (44)..(44)

<223> Amidation of carboxy group.

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His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		

Ser	Gly	Ala	Pro	Pro	Ser	Lys	Lys	Lys	Lys	Lys	Lys
		35					40				